

**IN THE CLAIMS**

1. (Currently Amended) A method of communicating information between a ~~number plurality~~ of nodes connected to an IEEE 1394 serial bus, wherein isochronous communication and asynchronous communication are performed on said bus and a node of isochronous resource manager is on said bus, comprising the steps of:

determining ~~acquiring~~ a value of corresponding to the actual maximum number of cable hops on connections of the nodes connected to said bus; and

calculating ~~establishing~~ predetermined communication parameters as a function of said ~~acquired~~ determined value;

determining a value of bandwidth to be used for said isochronous communication from said predetermined communication parameters; and

acquiring said bandwidth from said isochronous resource manager,

wherein a root node of said bus has highest value of node identification, and

said maximum number of cable hops is determined from a value of node identification (node ID) of said root node.

Claims 2-3 (Canceled)

4. (Original) The method of claim 1 wherein the step of establishing predetermined communications parameters comprises calculating a propagation time as a function of said actual number of connections of said nodes, a length of a transmission path between nodes and a physical delay of a node; and calculating an arbitration time as a function of the calculated propagation time and time needed by a node to effect calculations.

5. (Original) The method of claim 1 wherein said communication is asynchronous communication over said IEEE 1394 serial bus wherein data packets are time division multiplexed as a function of said predetermined communication parameters.

6. (Original) The method of claim 5 wherein said time division multiplexing includes gaps between packets, said gaps having a duration based upon said actual number of connections of said nodes.

7. (Currently Amended) Apparatus for communicating information between a ~~number~~ plurality of nodes connected to an IEEE 1394 serial bus, wherein isochronous communication and asynchronous communication are performed on said bus and a node of isochronous resource manager is on said bus, comprising:

means for determining ~~acquiring a value of corresponding to the actual~~ maximum number of cable hops on connections of the nodes connected to said bus; and

means for calculating ~~establishing~~ predetermined communication parameters as a function of said ~~acquired~~ determined value;

means for determining a value of bandwidth to be used for said isochronous communication from said predetermined communication parameters; and

means for acquiring said bandwidth from said isochronous resource manager,  
wherein a root node of said bus has highest value of node identification, and  
said maximum number of cable hops is determined from a value of node identification (node ID) of said root node.

Claims 8-9 (Canceled)

10. (Original) The apparatus of claim 7 wherein said parameter establishing means calculates a propagation time as a function of said actual number of connections of said nodes, a length of a transmission path between nodes and a physical delay of a node; and calculates an arbitration time as a function of the calculated propagation time and time needed by a node to effect calculations.

11. (Original) The apparatus of claim 7 wherein said communication is asynchronous communication over said IEEE 1394 serial bus wherein data packets are time division multiplexed as a function of said predetermined communication parameters.

12. (Original) The apparatus of claim 11 wherein said time division multiplexing includes gaps between packets, said gaps having a duration based upon said actual number of connections of said nodes.